REPORT OF THE SECRETARY OF THE AIR FORCE

INTRODUCTION

After the traumatic events of September 11, 2001, the words “clear and present danger” acquired a new meaning for America, our allies, and our friends. This nation’s safety and security, as well as the freedoms that we should never take for granted, are at risk here and abroad. As we move into the third year of this new century, we are facing an unprecedented array of asymmetric threats in the Global War On Terrorism. We are responding to critical missions at flashpoints in Afghanistan, the Middle East, and Southeastern Asia – we are poised to defend America’s interests wherever threatened. We continue to meet an unprecedented level of sustained demand for a diverse portfolio of air and space capabilities to quickly project American power globally while providing effective homeland defense. We are meeting this challenge while simultaneously transforming our capabilities, our operational concepts, and our people to meet the threats of today while preparing for tomorrow.

The U.S. Air Force continues to provide America the “high ground” advantage of space and unmatched air dominance in all theaters of operation. With new, more disruptive technologies in the hands of our enemies, we must apply the sum of our operational experiences and experimentation to develop dynamic, flexible, and adaptable forces capable of dissuading, deterring, and defeating a much wider range of potential future adversaries. This fluid setting underscores the need for agility in how we think about military operations, as well as more responsive planning and acquisition processes to provide future joint warfighters the tools they will need to support our National Security Strategy. As advanced military capabilities proliferate among potential adversaries, we need to keep pushing technology forward to dominate these threats before they can be used effectively against our interests. In less than one hundred years, American air and space power has evolved into an effective tool of national policy, creating a host of sophisticated, stealthy aerial vehicles capable of global reach. Through calculated research, development, and procurement decisions and a resolve to integrate all of our combat, information, and support systems into an enterprise architecture of joint air and space capabilities, we will achieve our mission to win this nation’s wars and protect our vital interests whenever and wherever they are threatened.

As we supported an unprecedented level of contingency operations over the last year, we evaluated, implemented, and validated a host of technological advances, organizational changes, and operational concepts that enabled our men and women to achieve desired effects on the battlefield faster and with greater precision than at any time in the history of warfare. Such adaptation is characteristic of Air Force transformation, as airmen strive to push the envelope to achieve innovative and unprecedented air and space capabilities for combatant commanders, the joint force, and our nation. We have continued to move

our expeditionary Air Force closer to realizing the transformational imperatives of this new era, machine-to-machine digital integration of manned, unmanned, space, and joint command and control assets.

FORCE MANAGEMENT

Transforming our force would not be possible without an integrated plan to educate, train, and mature the right mix of Active Duty, Air National Guard, Air Force Reserve, and civilian personnel who understand the nature of our changing security environment. To achieve this, we are evolving our personnel function towards a new Total Force Development process that better blends Professional Military Education, advanced academic degrees, and assignment policies. The strength of our nation's Air Force will never reside in systems alone, but in the airmen operating them. Nor will our capabilities improve solely through technological advances, but instead through the dedication, professionalism, skills, and adaptive insights of the Air Force family, including our extended family of defense analysts and members of industry to support our transformation objectives. We recruit and retain a remarkably diverse group to ensure we reach our fullest potential. Their backgrounds reflect the cross-section of American culture – all races, religions, economic and educational backgrounds, skill and management levels, men and women – that make this Air Force the tremendous organization that it is today.

Airmen embrace transformational ideas and seek to apply them to every aspect of the Air Force, from new organizational constructs to innovative joint concepts of operations. The true test of their ideas is evident in real-world operations, where the Air Force is often the "tip of the spear" – and airmen have proven themselves as unequalled warfighters. Whether maintaining safe skies over UN no-fly zones, supporting counter-terrorist missions in the jungles of the Philippines, or paying the ultimate price while rescuing fellow Americans in a battle on an Afghan ridge, our airmen are proven combat veterans. To enable our people to support these real-world expeditionary operations, the Air Force transformed to a force management construct known as the Air and Space Expeditionary Force (AEF). After nearly three complete and successful deployment cycles, our AEF construct is validated as an effective means of meeting our nation's increased operations tempo requirements. Yet we've continued to enhance the construct by initiating significant organizational changes -- for example, ensuring that every airman belongs to one of our ten AEFs. A beneficial collateral effect has been a change in our corporate mindset and culture, where an airman's AEF association cultivates an expeditionary perspective and a clearer appreciation for joint warfighting requirements and capabilities.

Force Development – A New "Flight Plan" for Leadership

Future military missions will require greater sophistication and understanding of the security environment, and our expeditionary force requires airmen with international

insight, foreign language proficiency, and cultural understanding. We are working diligently to expand the cadre of professionals with such skill sets and experiences. Our education initiatives will contribute to a major corporate culture shift that fosters appropriate development throughout our airmen's careers to meet evolving force requirements. In the past, we addressed aspects of career development, education, and assignments individually, but not necessarily in a coordinated, connected approach. Recognizing this, and to prepare for the future, we introduced a systemic force development construct that evolves professional airmen into *joint* force warriors. This construct provides the right level, timing, and focus of education, training, and experience for all airmen, while encompassing personal, team, and institutional leadership skills for all levels of military operations.

As opportunities in advancing technologies unfold, it is imperative that the Air Force continue to draw upon a vibrant collection of educated, technically skilled, and technologically savvy airmen – both uniformed and civilian alike. Agile, flexible training is an essential investment in human capital, and our initiatives ensure our investment delivers the right training to the right people at the right time. In August 2002, we began our groundbreaking Enlisted-to-Air Force Institute of Technology (AFIT) Program. An initial cadre of senior NCOs began receiving world-class, graduate education to optimize them for greater responsibilities and challenging follow-on assignments. In addition, because more than 42 percent of our civilian force will be eligible for retirement in the next five years, we are committing significant resources to pay for advanced education as well as cross-functional career broadening.

Diversity

Diversity is a readiness issue; it is a warfighting issue. We know that we must continue to attract people from all segments of American society and tap into the talents and advantages resident in our diverse population if we hope to reach our fullest potential as a fighting force. Today's multi-threat world also mandates that we instill in our airmen the ability to effectively think across cultural boundaries and functional paradigms. Our continuing goal is to recruit, train, and retain airmen without imposing artificial intellectual boundaries, adopting the personnel policies and practices that will best integrate people, their ideas, new weapons and systems to achieve air and space dominance.

Recruiting the Best

It takes tremendous effort to identify and develop such airmen, yet the return for the nation is immeasurable. Increased advertising, an expanded recruiting force with broader access to secondary school students, and competitive compensation prepare us to meet recruiting goals. Despite the challenge of mustering such a diverse and skilled collection of Americans, we exceeded our Fiscal Year 2002 enlisted recruiting goals and expect to

surpass Fiscal Year 2003 objectives. We will adapt our goals to meet new force objectives; however, the capacity limitations of Basic Military Training and Technical Training School quotas will continue to challenge our Total Force recruiting efforts.

Officer recruitment presents similar challenges. We are particularly concerned with a shortage of military and civilian scientists and engineers. We fell short of our accession goal for this group and have begun all-out recruitment and retention efforts for these critical specialties.

Historically, the Air National Guard and Air Force Reserve access close to 25 percent of eligible separating Active Duty Air Force members (i.e., no break in service). The demands of continued high operations tempo may negatively impact our efforts in attracting Air National Guardsmen, as well as drawing separating Active Duty airmen to the Air Force Reserve. As a result, recruiting will have to make up a substantial portion of accessions from that market by developing alternatives.

Retention

The Air Force is a retention-based force. The critical skill sets we develop in our airmen are not easily replaced, so we expend every effort to retain our people – the impetus for our "re-recruiting" efforts. Overall retention plans include robust compensation packages that reward service, provide for a suitable standard of living, ensure a high quality of life, and retain the caliber of professionals we need to win America's wars decisively. Over the past year, we continued to reap the benefits of our aggressive retention program, aided by bonuses, targeted pay raises, and quality of life improvements. Introducing the Critical Skills Retention Bonus for select officer specialties reinforced our commitment to target specific skills suffering significant retention challenges. The Air National Guard has placed particular emphasis on aircraft maintenance fields, security forces, and communication and intelligence specialists by offering enlistment and reenlistment bonuses, a Student Loan Repayment Program, and the Montgomery GI Bill Kicker Program. However, many airmen retained under Stop Loss will separate throughout Fiscal Year 2003 – a fact of particular concern for our rated force. Our flexible Aviation Continuation Pay (ACP) program remains an important part of our multifaceted plan to retain pilots.

OPERATIONS

Meeting Our Nation's Warfighting Requirements

Committed to meeting any mission tasked, the Air Force completed an unprecedented array of operations and exercises in 2002. From the jungles of the Philippines to the deserts of the Middle East, and across every continent and body of water, the Air Force joined with land and naval forces to secure America's national security objectives. We do

not act as individual services, but in concert as joint warfighters to prevail in the war on terrorism and all military missions required of our nation. With each mission, the joint force grows more capable as we mature our vision, our capabilities, and our joint culture.

Our most fundamental mission is to protect America – Homeland Defense. In support of that mission, the Air Force achieved a range of alert postures involving more than 200 military aircraft at over 20 airbases for Operation NOBLE EAGLE (ONE). In conjunction with unprecedented NATO airborne warning support and other U.S. assets, we have provided continuous combat air patrols over sensitive/high risk areas, and random patrols over other metropolitan areas and key infrastructure. In 2002, airmen flew over 25,000 ONE fighter, tanker, airlift, and airborne warning sorties, made possible only through the mobilization of over 30,000 reserve component airmen.

Throughout Operation ENDURING FREEDOM (OEF), the Air Force has maintained a continuous, steady-state presence consisting of over 14,000 airmen in Afghanistan and the associated theater of operations. Air Force assets provided crucial intelligence and situation awareness, combat power, and support capabilities for the combatant commander. A key reason for American military success in the region is the performance of Air Force special operations airmen. Working in teams with other special forces, ground units, and coalition elements, "blue-suit" special operators are positioned on the ground to target enemy resources using the full lethality of integrated air and space capabilities. Fully engaged in all aspects of the war on terrorism, from mobility to close air support, our aircraft and crews flew more than 40,000 OEF sorties in 2002 – over 70 percent of all coalition sorties. This includes more than 8,000 refueling missions conducted by the "linchpin" capability for joint warfighters – the tanker force. Simply put, Air Force mobility forces made operations in a distant, land-locked nation possible.

Our 2002 combat operations were not limited to ONE and OEF. Iraqi forces fired on coalition aircraft over 400 times during 14,000 sorties supporting Operations NORTHERN WATCH and SOUTHERN WATCH. In support of these missions, the Air Force maintained a continuous, regional presence of more than 9,000 airmen, complementing other air and space assets that provided vital intelligence, situation awareness, and indications and warning to monitor Iraq's compliance with United Nations' directives.

Beyond air operations, we operated and maintained several constellations of earth-orbiting satellites, and in 2002 we launched 18 missions with a 100 percent success rate – including the first space launches using Evolved Expendable Launch Vehicles. These activities bolstered America's assured access to space and ensured vigorous, global intelligence, surveillance and reconnaissance (ISR), missile warning, precision navigation and timing, communications, and weather systems. In addition, manned, unmanned, and space ISR assets not only delivered unprecedented battlefield awareness, but, with the

Predator unmanned aerial vehicle (UAV), we also introduced transformational combat capabilities.

We continue to deliver force protection through the integrated application of counterterrorism and antiterrorism operations, and preparedness for chemical, biological, radiological, nuclear, and explosive incidents. We employ a tailored selection and application of multilayered active and passive, offensive and defensive measures. Intelligence and counterintelligence programs support this integrated effort and remain critical to our success. In this regard, we continued to develop and employ all-source intelligence systems; cross-functional intelligence analysis procedures; and an operational planning process to implement Force Protection operations that deter, detect, deny, and destroy threats. Our goal is to see first, understand first, and act first.

Extending A Helping Hand

Even though the fight against global terrorism is our national military focus, throughout 2002 airmen joined soldiers, sailors, and marines in the Balkans, South America, Europe, Asia, and around the world to assure our friends while deterring and dissuading our adversaries. In 2002, airlift crews exceeded 2.4 million airdropped daily ration deliveries in Afghanistan, evacuated allied personnel at threatened locations around the world, and flew typhoon relief missions to Guam, while our explosive ordnance specialists removed unexploded munitions in Africa. At the same time that airmen were supporting an unprecedented level of food, medical, civil engineering, and evacuation relief efforts in warring regions, we were also on call to perform critical, quick-response missions during natural or manmade crises at home.

Executive Agent for Space

The Air Force is proudly performing its role as the Department of Defense Executive Agent for Space with confidence and enthusiasm. In conjunction with the other services and agencies, we are shaping a new and comprehensive approach to national security space management and organization. Our capstone objective is to realize the enormous potential in the high ground of space, and to employ the full spectrum of space-based capabilities to enable joint warfighting and to protect our national security. The key to achieving this end is wholesale integration – through air, land, space, and sea; across legacy and future systems; among existing and evolving concepts of operations; and between organizations across all sectors of government. We will continue to deliver the unity of vision and effort required toward fulfilling our mission of delivering the most advanced space capabilities for America. It is in this context of the widespread and increasing importance of space systems that we strive to meet present and future national security challenges by providing dominant space capabilities that will:

- Exploit Space for Joint Warfighting. Space capabilities are integral to modern warfighting forces, providing critical surveillance and reconnaissance information, especially over areas of high risk or denied access for airborne platforms. We are working to enhance existing capabilities and, where it makes sense, pursue new ones such as the Transformational Communications System (TCS), which promises to dramatically increase bandwidth for our joint warfighters; and the Space Based Radar, which will complement the airborne Joint Surveillance Target and Attack Radar System by migrating portions of the Ground Moving Target Indicator capability into space.

- Pursue Assured Access to Space. We cannot effectively exploit space for joint warfighting if we do not have responsive, reliable, and assured access to space. In August 2002, the new Evolved Expendable Launch Vehicle got off to a strong start with the successful launch of Lockheed Martin's Atlas V booster. Boeing's Delta IV program added to the nation's array of modern launch vehicles with liftoff in November 2002. We are also pursuing advanced and highly versatile reusable launchers and small expendables with extremely short response times to achieve long-term assured access, while taking the necessary steps to maintain and improve our space launch infrastructure.

- Preserve Our Freedom of Action in Space. Our nation must be able to act freely in space or risk losing those capabilities essential to joint warfighting. We initiated efforts to increase our space situation awareness, beginning with the new Space Situation Awareness Integration Office at Air Force Space Command, and a similar program at the Space and Missile Systems Center. Future efforts are planned to develop strategy, doctrine, and programs to improve the protection of our own space capabilities while denying the benefits of joint space capabilities to our adversaries.
- Develop Our People. The Air Force's Space Professional Strategy fulfills a Space Commission recommendation to develop space professionals and nurture a cadre to lead our national security space endeavors at all levels in the decades ahead. These space-expert airmen will become the core leadership for future space operations, and will shoulder the brunt of the responsibility for advancing joint warfighting capabilities into the high ground frontier.

Transforming How We Train

Over the past year, we advanced joint and combined interoperability skills with our sister services and those of 104 nations through 111 Joint Chiefs of Staff exercises and Joint Task Force experimentation events conducted in 40 foreign countries. Exercises ranged from large field training events such as BRIGHT STAR, to command post exercises like POSITIVE RESPONSE, and smaller but equally valuable humanitarian exercises, as in school construction, well drilling, and medical clinic visits. Clearly training, while not unique to our military, is a unique American military strength. But we cannot continue to

rely on the methods of the past as we face the challenges and opportunities of the future. As our potential adversaries work to overcome our technological superiority, it is imperative that we enhance our "training advantage" by improving our operational proficiency at the tactical level coincident with integrating training at the joint level. To achieve this objective, we remain fully engaged with the other services, unified commands, and the Office of the Secretary of Defense in developing and implementing a training transformation plan. While our vector is new, our goal remains to train as we will fight by increasing the joint content of our exercises in live, virtual, and distributed training environments.

Task Force Enduring Look

Success in future missions also hinges upon our ability to learn from previous operations. To ensure that we learn from ongoing operations and adapt accordingly, we established Task Force Enduring Look. Task Force Enduring Look is responsible for Air Force-wide data collection, exploitation, documentation, and reporting of lessons-learned from ONE and OEF. Through extensive investigation and analysis, Enduring Look is examining Air Force and joint warfighting effectiveness to help shape the transformation of expeditionary air and space power.

Transforming to a 21st Century Global Reconnaissance and Strike Force

The Air Force is continually developing new areas of expertise that sustain us as the world's preeminent air and space force. In the past, we have distilled our distinctive capabilities into what we called our six "core competencies" – Air and Space Superiority, Global Attack, Rapid Global Mobility, Precision Engagement, Information Superiority, and Agile Combat Support. Our evolving recognition of the fundamental characteristics from which we derive our strength and sustain our air and space dominance, led us to identify three new institutional core competencies, forming the backbone around which we organize, train, and equip:

- Developing Airmen: the heart of combat capability
- Technology-to-Warfighting: the tools of combat capability
- Integrating Operations: maximizing combat capabilities

Our core competencies reflect a legacy of transformational thinking – innovation and adaptation focused on accomplishing our mission. This point is underscored by the fact that, in spite of a more than 30 percent reduction in manpower over the past twelve years, we have faced an exponential increase in worldwide taskings. Intensifying operations tempo requires significant changes in the way our force organizes, trains, and equips to support combatant commander requirements. Just as the advent of aircraft revolutionized the nature of warfighting, recent advances in low observable technologies, space-based

systems, manipulation of information, precision, and small, smart weapons offer dramatic advantages for combatant commanders.

The F/A-22 is an excellent example of our ability to adapt innovative technology to warfighting capabilities and evolving operational requirements. Originally envisioned as an air superiority fighter, it has been transformed into a multirole system. The F/A-22 not only brings to bear warfighting capabilities without equal for decades to come, but also includes those we did not foresee at its inception. Collectively, the platform's supercruise, stealth, maneuverability, and novel avionics will give joint warfighters the ability to achieve crucial battlefield effects – penetrating into anti-access areas, putting precision munitions on target, detecting and intercepting aircraft and cruise missiles, allowing 24-hour stealth – and implement new and evolutionary concepts of operations.

Capabilities-based Concepts of Operations

As we transform to meet the exigencies of our strategic environment, our principal focus has transitioned from fielding a platform-based garrison force to developing a capabilities-based expeditionary force. The Air Force's Air and Space Expeditionary Force (AEF) construct divides our combat forces into ten equivalent AEFs, each possessing air and space warfighting and associated mobility and support capabilities. The AEF construct is the tool that we use to organize and deploy expeditionary wings, groups, and squadrons. A key element of our ability to deliver these tailored and ready expeditionary forces is the parallel development of concepts of operations (CONOPS) that describe how we fight and how we integrate with our sister services and outside agencies. In short, CONOPS are the fundamental "blueprints" for how we go to war. In addition to guiding our decisions during operational planning, CONOPS help us to provide scalable, quick-reacting, task-organized units from the ten standing AEFs, and sustain our ability to ensure trained and ready forces are available to satisfy all operational requirements.

Developing new CONOPS will help us make the shift to a "capabilities-based" force by providing solutions to a variety of problems joint warfighters can expect to encounter in the future. Whether detailing our plans for operating in an anti-access environment or identifying how to deliver humanitarian rations to refugees, Air Force CONOPS lend focus on the essential elements required to accomplish the mission. They cover the complete spectrum of warfighting capabilities (deep strike, information, urban, psychological operations) and enable us to tailor forces (expeditionary wings, groups, or squadrons) from existing AEFs to meet joint requirements. In support of this effort, our new Capabilities Review and Risk Assessment process assesses CONOPS capability shortfalls, health, risks, and opportunities, while prioritizing future capability opportunities. This helps CONOPS developers articulate disconnects between required capabilities and developing programs, while providing senior Air Force leadership an

operational, capabilities-based focus for acquisition program decision-making. Current Air Force CONOPS include:

- **Global Strike** – employs joint power-projection capabilities to engage anti-access and high value targets, gain access to denied battlespace, and maintain battlespace access for all required joint/coalition follow-on operations.

- **Global Response** – combines intelligence and strike systems to attack fleeting or emergent high value or high risk targets by surgically applying air and space power in a narrow window of opportunity, anywhere on the globe, within hours.

- **Homeland Defense** – leverages Air Force capabilities with joint and interagency efforts to prevent, protect, and respond to threats against our homeland – whether within or beyond U.S. territories.

- **Space and Command, Control, Communications, Computers, Intelligence Surveillance, and Reconnaissance (Space & C4ISR)** – harnesses horizontal integration of manned, unmanned, and space systems to provide persistent situation awareness and executable decision-quality information to the Joint Force Command.

- **Global Mobility** – provides regional combatant commanders with the planning, command and control, and operations capabilities to enable rapid, timely, and effective projection, employment, and sustainment of U.S. power in support of America's global interests, ensuring precision delivery of required operational effects.

- **Nuclear Response** – provides the deterrent "umbrella" under which conventional forces operate and, if deterrence fails, avails a rapid scalable response.

- **Air and Space Expeditionary CONOPS** – provides the overarching context, which identifies and sequences distinctive capabilities and broad-based functions that air and space power assets can give the Joint Force Command to generate desired effects in support of national military objectives.

TRANSFORMING THE INSTITUTIONAL AIR FORCE

Performance and Accountability – New Ways of Doing Business

To achieve our vision of an agile, flexible, responsive, and capabilities-based air and space force, we must transform the processes that provide combatant commanders with

air and space capabilities. An example of this in action is the Air Force's efforts to carry out the responsibilities of DoD's Space Milestone Decision Authority (MDA). The Secretary of the Air Force delegated these responsibilities to the Under Secretary of the Air Force. Adapting an effective process already in use at the National Reconnaissance Office (NRO), the Under Secretary instituted a new streamlined space acquisition program review and milestone decision-making process. This new process was used for the first time in August 2002 in developing a contract for the National Polar-orbiting Operational Environmental Satellite System. This effort creates an opportunity for the Air Force to apply performance and cost accountability to defense industrial firms through their chief financial officers and board of directors by linking executive compensation to contract performance.

In addition to the major process changes for DoD space, the Air Force's Business Transformation Task Force directed and integrated improvements to our core business and operations support processes. Our objective is to continually improve our acquisition, logistics, maintenance, training, medical, dental, and other corporate processes as they ultimately determine our overall enterprise effectiveness and directly sustain combat capabilities. An additional category of processes called *enablers* completes the Air Force enterprise. Enablers include the management of human resources, finances, contracts, property, plant and equipment, and information. These enablers are important as they facilitate our distinct capabilities and determine the overall efficiency of our enterprise.

The Air Force is moving to enact business transformation from an integrated enterprise perspective, examining every process and associated link, streamlining the Strategic Resource Planning Process in accordance with new DoD directives. Accordingly, we will employ industry best practices and identify management metrics to improve process efficiency without degrading our enterprise effectiveness; expand our customer's self-service management capability and free up needed resources for the operational communities; and provide accurate real-time financial data for better decision making. Already, acquisition reform has effected notable improvements:

- Streamlined our acquisition and contracting regulations

- Created a Program Executive Office for Services to bring centralized coordination, oversight, and new efficiency to the growing area of services contracts – which accounts for nearly half of our procurement budget

- Developed and initiated System Metric and Reporting Tool (SMART), putting real-time program status information on everyone's desktop

- Empowered "High Powered Teams" of requirements and acquisition professionals to create spiral development plans to deliver initial capability to warfighters more quickly, and add capability increments in future spirals

- Designed a Reformed Supply Support Program to improve the spares acquisition process by integrating the support contractor into the government supply system

- Continued, with OSD support, expansion of the Reduction in Total Ownership Cost program to identify critical cost drivers, fund investments to address them, and generate cost savings and cost avoidance

Aligned with OSD's push to adopt Balanced Scorecard performance measures and the President's Management Agenda, these initiatives are only the beginning of a comprehensive and aggressive approach to reforming Air Force business practices. Our efforts today will have a direct effect on efficient and effective air and space capability acquisition, both immediately and in the future.

Ensuring Readiness

Reconstituting and reconfiguring our expeditionary basing systems and wartime stocks is a critical element of our force projection planning. While we made significant strides in funding, we require additional investments in bare base systems, vehicles, spares, munitions, and pre-positioning assets. Our infrastructure investment strategy focuses on three simultaneous steps. First, after a thorough examination, we must dispose of excess facilities. Second, we must fully sustain our facilities and systems so they remain combat effective throughout their expected life. Third, we must establish a steady investment program to restore and modernize our facilities and systems, while advancing our ability to protect our people and resources from the growing threat of terrorism at current, planned, and future operating locations – at home or abroad.

Improved vehicle fleet funding allowed us to replace some aging vehicles with more reliable assets, including alternative fuel versions to help meet federal fuel reduction mandates. Targeted efficiencies in spares management and new fuels mobility support equipment will improve supply readiness. In addition, our spares campaign restructured Readiness Spares Packages and repositioned assets to contingency sites. Moreover, to increase munitions readiness, we expanded our Afloat Prepositioning Fleet capabilities, and continue acquiring a broad mix of effects-based munitions in line with the requirements of all Air Force CONOPS.

Finally, our Depot Maintenance Strategy and Master Plan calls for major transformation in financial and infrastructure capitalization to ensure Air Force hardware is safe and ready to operate across the threat spectrum. To support this plan, we increased funding in FY 2004 for depot facilities and equipment modernization. We also began a significant

push to require weapon systems managers to establish their product support and depot maintenance programs early in the acquisition cycle and to plan and program the necessary investment dollars required for capacity and capability. Additionally, we are partnering with private industry to adopt technologies to meet capability requirements. The results from these efforts will be enhanced, more agile warfighter support through the critical enabler of infrastructure.

Expanding AEF Personnel

In the wake of the September 11, 2001, attacks, the Global War on Terrorism, and stepped-up air operations in Afghanistan, Iraq and other hotspots, workload and stress in a number of mission areas have significantly increased for our expeditionary forces. Manning for these operations is drawn from our existing AEF packages. In order to accommodate increased contingency requirements we are exploring options to augment the existing AEF construct. Recent and ongoing efforts to maximize the identification of deployable forces and align them with the AEF cycle have helped in meeting the more immediate warfighting requirements.

We are refocusing uniformed manpower allocation on our distinctive capabilities to reduce the stress on our active force. Additionally, we are carefully considering technologies to relieve the increased workload. These efforts exist within our longer-term goals to reengineer, transform, and streamline Air Force operations and organizations, and have allowed us to realign some new recruits into our most stressed career fields.

Our focus on more efficient and responsive capabilities and planning processes has inspired us to adapt the way we organize, train, and equip our forces. The requirements that emerge from the Air Force CONOPS will guide a reformed acquisition process that will include more active, continuous partnerships among requirement, development, operational, test, and industry communities working side by side at the program level.

Science and Technology – Wellspring of Air and Space Capabilities

We are improving our Science and Technology planning and collaboration with other services and agencies to ensure that we encourage an operational pull that conveys to the Science and Technology community a clear vision of the capabilities we need for the future. The goal is to address the full spectrum of future needs in a balanced and systematic manner. We are also working to enhance our ability to quickly demonstrate and integrate promising technologies. Some of these new technologies – for example, the Predator unmanned aerial vehicle and laser-based communications – show clear promise for near-term, joint warfighting applications.

Addressing the Recapitalization Challenges

We have made tremendous strides in modernizing and improving maintenance plans for our aircraft; however, the cruelty of age has introduced new problems for old aircraft. Reality dictates that if we completely enhance the avionics and add new engines to 40-year old tankers and bombers, they are still 40-year old aircraft, and subject to fleet-threatening problems such as corrosion and structural failure.

This is equally true for our fighter aircraft, where once cutting-edge F-117s now average over 15 years of service, and mainstay air-dominance F-15Cs are averaging nearly 20 years of service. With double-digit surface-to-air missile systems, next-generation aircraft, and advanced cruise missile threats proliferating, merely maintaining our aging fighter and attack aircraft will be insufficient. In fact, the dramatic advances offered in many of our operational concepts cannot be realized without the addition of the unique capabilities incorporated in the F/A-22. Simply stated, our legacy systems cannot ensure air dominance in future engagements – the fundamental element for joint force access and operations. We will thus continue executive oversight of F/A-22 acquisition in order to ensure program success.

Although ultimately solving these recapitalization challenges requires acquisition of new systems, we will continue to find innovative means to keep current systems operationally effective in the near term. We know that just as new problems develop with old systems, so too do new opportunities for deployment, such as our use of B-1s and B-52s in a close air support role during Operation ENDURING FREEDOM. We will also pursue new options for these long-range strike assets in a standoff attack role for future operations.

Additionally, we are looking for ways to replace our orbiting space systems and satellites, improve outmoded ground control stations, enhance protective measures, continue to address new space launch avenues, and address bandwidth limitations in order to continue leveraging space capabilities for the joint warfighter. We are exploring alternatives for assuring access to space, and a key aspect of this effort will be invigorating the space industrial base.

Finally, it is imperative that we address the growing deficiencies in our infrastructure. Any improvements we may secure for our air and space systems will be limited without a commensurate address of essential support systems. Deteriorated roofs, waterlines, electrical networks, and airfields are just some of the infrastructure elements warranting immediate attention.

Organizational Adaptations

In 2002, we initiated numerous adaptations to more efficiently and effectively exploit Air Force advantages for the joint warfighter. Comprehensive integration of the Air Force's extensive C4ISR systems is paramount for our future capabilities. This requires an enterprise approach of total information cycle activities including people, processes, and technology. To achieve this, we created a new Deputy Chief of Staff for Warfighting Integration, which brings together the operational experience and the technical expertise of diverse elements (C4ISR, systems integration, modeling and simulation, and enterprise architecture specialties). This new directorate will close the seams in the kill chain by guiding the integration and interoperability of manned, unmanned, and space C4ISR systems.

Partnering with Warfighting Integration efforts, the Air Force Chief Information Officer shares responsibility to spearhead the transformation to an information-driven, network-centric Air Force. These two organizations orchestrate the integration of Air Force systems, processes, platforms within our information enterprise. The goal is to provide the roadmap for innovation and to function as a blueprint that can be used to leverage our information technology resources. This comprehensive information architecture will serve as a key construct in defining mission information requirements and promoting interoperability.

Blended Wing

We do nothing in today's Air Force without Guard, Reserve and civilian personnel working alongside Active Duty airmen. A fundamental initiative of Air Force transformation is to employ innovative organizational constructs and personnel policies to effectively integrate these components into a single, more homogenous force. In this way, we can create efficiencies, cut costs, ensure stability, retain invaluable human capital and, above all, increase our combat capabilities.

A key effort is to "blend" units from two or more components into a single wing with a single commander. This level of integration is unprecedented in any of the services, where Active Duty, Guard, and Reserve personnel share the same facilities and equipment, and together, execute the same mission. In essence, blending provides two resource pools within a single wing – one, a highly experienced, semipermanent Reserve component workforce, offering stability and continuity; the other, a force of primarily Active Duty personnel able to rotate to other locations as needs dictate.

In October 2002, the blended wing concept became a reality with the activation of the 116th Air Control Wing. Meanwhile, parallel efforts, such as placing Reserve pilots and maintenance personnel directly into Active Duty flying organizations under the Fighter

Associate Program, add to this leveraging of highly experienced Reservists to promote a more stable, experienced workforce. As organizational constructs, blending and associate programs have laid an important foundation for a capabilities-based, expeditionary air and space force that is inherently flexible enough to meet rotational AEF requirements.

Combat Wing

The comprehensive evaluations in our ongoing transformation have also included examining our wing structure. Given all of the lessons gleaned from expeditionary operations over the past decades, we thought it possible to derive advantages in revised wing organization for both force development and combat capability. The result was the creation of the Combat Wing Organization. The central aspect of the Combat Wing Organization is the new Mission Support Group. This will merge former support and logistics readiness groups, and contracting and aerial port squadrons, as applicable. Within this group, we will hone expeditionary skills from crisis action planning, personnel readiness, and working with the joint system for load planning and deployment, to communications, contingency bed-down, and force protection. Currently, all of these aspects exist in skill sets that none of our officers have in total. But the new expeditionary support discipline will address this, and provide our officers with broad expertise in all aspects of commanding expeditionary operations. With this reorganization, each wing will now have one individual responsible for the full range of deployment and employment tasks – the Mission Support Group Commander.

THE BOTTOM LINE

The events of the last year have emphasized the uncertain dynamics of a new international security era marked by the rise of non-state actors and rogue powers, many following a path of ruthless aggression and massive destruction. The undeterred spread of weapons of mass destruction has upped the ante in a high stakes game. Yet, just as America adapted to new global dynamics in the past, we will again confront emerging challenges with confidence and faith in our ability to meet the demands of assuring freedom and safeguarding global peace and stability.

The men and women of the U.S. Air Force continue to spearhead our nation’s defense against aggression. The ability to reach out and deliver precisely targeted effects across the spectrum of national security requirements is the cornerstone of Air Force strategic planning and programming. Closely integrated with ground, naval, and marine forces as well as other national agency systems, the Air Force will bring to bear a suite of flexible air and space capabilities to ensure the success of tomorrow’s joint force commander.